QuickSpecs

Overview

Models

Compaq NC6136 Gigabit Server Adapter PCI, 64/66 1000-SX	203539-B21

The NC6136 is a second-generation Gigabit server adapter for fiber-optic environments. It offers superior performance while also supporting advanced server features such as PCI Hot Plug, Network Fault Tolerance, Transmit Load Balancing, and Switch-Assisted Load Balancing.

Fast Ethernet Server Adapters:

NC3123: PCI, 10/100 WOL	174830-B21
NC3134: Fast Ethernet NIC 64 PCI Dual Base 10/100	138603-B21

Gigabit Server Adapters:

NC7131: Gigabit Server Adapter, PCI, 64/66, 10/100/1000-T	158575-B21

Optional Upgrade Modules for use with the NC3134:

NC3133: 100 FX Upgrade Module	338456-B25
NC3135: Dual 10/100 Upgrade Module	138604-B21
NC6132: 1000 SX Upgrade Module	338456-B23
NC6133: 1000 LX Upgrade Module	338456-B24

Introduction

The NC6136 strengthens Compaq's Gigabit server adapter offerings by providing a single port 1000 Mbps Ethernet connection for 32- and 64-bit PCI slots in fiber-optic environments, where security, distance requirements, and EMI protection are of paramount importance.

Performance

32-/64-bit Bus-mastering The NC6136 offers the highest data transfer method available between a network and a server for high performance and low CPU utilization. The NC6136 operates in 32- or 64-bit PCI slots and uses 33 or 66MHz bus-mastering technology to maximize throughput and minimize CPU utilization.

Port Bonding Transmit Load Balancing (TLB) and Switch-Assisted Load Balancing (FEC/GEC/802.3ad static-mode configuration only) are two port-bonding methods that are supported by the NC6136. TLB provides both failover and balancing of transmit traffic across all adapters for increased performance. For even higher performance, Switch-Assisted Load Balancing (SLB) provides port failover and balancing of both transmit and receive traffic across all adapters when connected to a switch that supports this feature.

Jumbo Frames Jumbo Frames (also known as Extended Frames) offer a 9K byte Maximum Transmission Unit (MTU), which is six times the size of traditional Ethernet frames. Like all Compaq Gigabit server adapters, the NC6136, supports jumbo frames as a way to achieve higher throughput and better CPU utilization when deploy in a network infrastructure that supports them. Jumbo frames are particularly useful for database transfers and tape backups.

Performance Enhancements The NC6136 supports Interrupt Coalescence in all the major OS environments, reducing CPU utilization. The NC6136 also supports Receive and Transmit TCP Checksum Offloading, as well as Transmit IP Checksum Offloading under Windows 2000.

Ease of Use

Plug and Play Fully compliant with the 2.2 PCI specifications, this adapter automatically configures its I/O address and interrupt (IRQ) settings for easy installation.

Overview

Security/Reliability

Network Fault Tolerance (NFT)

The Network Fault Tolerance feature of the NC6136 ensures that the server can always keep an active link. After installing a second, compatible adapter, if the primary network connection fails, the second, backup adapter will automatically take over, retaining the network connection. The NC6136 can be configured to fail over to any NC31xx, NC61xx, or NC71xx adapter by using the latest drivers.

PCI Hot Plug

The NC6136 includes PCI Hot Plug support, which enables it to be replaced or added to a PCI Hot Plug compatible server without powering down the system. This feature provides increased system availability and non-stop serviceability in business-critical computing environments.

Network Management

Standards-based

The NC6132 supports the following Compaq Management tools and industry network management standards:

- Compaq Insight Manager
- Compaq Insight Manager XE
- SNMP
- DMI 2.0
- Web-Based Enterprise Management (WBEM)

Server Integration

Compaq's SmartStart configuration utility includes setup support for the NC6136 so the adapter can be configured as part of the SmartStart configuration process. Compaq Insight Manager can recognize the NC6136 individually or in port bonded teams, and can collect and report SNMP statistics on the adapter events.
Integrated Management Log (IML) support is provided by the NC6136 for critical event logging on Compaq servers.

Configuration Utilities

Each NC6136 ships with a suite of OS-tailored configuration utilities that allow the user to run initial diagnostics and configure adapter teams for Network Fault Tolerance, Transmit Load Balancing, or Switch-Assisted Load Balancing (FEC/GEC/802.3ad static-mode configuration only) in the Windows 2000 and Windows NT operating systems.

Diagnostic LED Indicators

Bracket LEDs indicate link integrity and network activity. A diagnostic LED on the board indicates whether the NC6136 is running at 33 or 66 MHz bus speed.

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Technical Specifications

Compliance	IEEE 802.3x, 802.3z, 802.3ad (static configuration mode only), 802.1p, and 802.1Q
	PCI 2.2
	ACPI v1.20a compliant

General Specifications

	Communications Processor	Intel 82543GC
	On-board memory	1000 Mbps, Full-duplex
	Data path	64 KB
	Interrupt levels	64-bit/66 MHz, compatible with 64/33 and 32/33
	Bus architecture	INTA
	Connector	PCI bus-mastering
	Wavelength	SC
	Distance and wiring	SX = 850nm
	Dimensions (LxW)	Up to 1,804 ft/550 m with multimode fiber (50µm/125µm)
		Up to 705 ft/220 m with multimode fiber (62.5µm/125µm)
		7 x 2.75 in/18 x 7.2 cm

64-bit addresses for systems with more than 4 GB of physical memory
64-bit PCI host interface compliant with PCI 2.2
Command usage optimization for advanced PCI commands (MWI and memory reads)
Software controlled global reset bit (resets everything except PCI configuration registers)

Power and Environmental Specifications

	Operating	Temperature	32° to 131°F/0° to 55°C
		Humidity	10% to 90%
	Non-operating	Temperature	-85° to 185°F/-65° to 85°C
		Humidity	5% to 95%
	Power requirement	1620 mA @ 5V maximum	
	Emissions Standards	FCC Class B, VCCI Class B, BSMI Class A, CISPR 22 Class B, EN60950, EN 55022 Class B, EN55024, UL, Canada UL, CES-003 Class B	
	Safety Compliant	CE Mark	

Operating System Support
Windows 2000
Windows NT 4.0
Novell NetWare 4.x, 5.x Server
SCO UnixWare 7.x
SCO OpenServer 5.x
Linux Red Hat 7.x
MS-DOS Client for unattended installation

Software Feature Support by Operating System	FEATURE	Windows 2000	Windows NT 4.0	Linux 32-bit	UnixWare 7.x	Open Server 5.x	NetWare 3.12, 3.2 Server	NetWare 4.11 Server	NetWare 5.0 Server
	NFT	*	*		*	*		*	*
	Link Aggregation	*	*					*	*
	PCI Hot-Plug	*	*					*	*
	Configuration and Diagnostics	*	*						
	DMI 2.0	*	*					*	*
	SNMP	*	*	*			*	*	*
	SmartStart	*	*	*	*	*	*	*	*
	Insight Manager Insight Manager XE	*	*	*	*	*	*	*	*
	IML	*	*	*	*	*	*		

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Technical Specifications

Kit Contents NC6136 Gigabit Server Adapter
CD containing Drivers, User Guide, and Installation and Diagnostic utilities
Quick Install Card
Product Quality Statement
Product Warranty Statement

Warranty **Maximum**: The remaining warranty of the Compaq server product in which it is installed (to a maximum of a three-year limited warranty).

Minimum: One-year, on-site limited warranty.

NOTE: Certain restrictions and exclusions apply. In North America, call 1-800-OK-COMPAQ; outside of North America, please contact your customer service center.